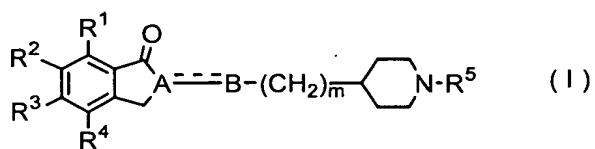


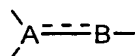
Abstract

The present invention provides an indanone derivative and an excellent sigma receptor binding agent comprising an indanone derivative. More specifically, it provides a sigma receptor binding agent comprising an indanone derivative represented by the following formula, a pharmacologically acceptable salt thereof or a hydrate of them.

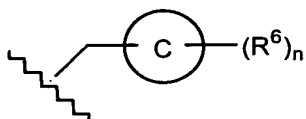


In the formula (I), R^1 , R^2 , R^3 and R^4 are the same as or different from each other and each represents hydrogen atom, a halogen atom, hydroxyl group, nitrile group, a C_{1-6} alkyl group which may be substituted, a cycloalkyl group having three to eight carbon atoms which may be substituted, a C_{1-6} alkoxy group which may be substituted, a cycloalkoxy group having three to eight carbon atoms which may be substituted, an acyl group having one to six carbon atoms which may be substituted, a C_{1-6} alkoxycarbonyl group which may be substituted, a C_{1-6} alkylaminocarbonyloxy group which may be substituted, a di(C_{1-6} alkyl)aminocarbonyloxy group which may be substituted, nitro group, an amino group which may be substituted, an amido group which may be substituted, mercapto group or a thio- C_{1-6} alkoxy group which may be

substituted, and further R¹ with R², R² with R³, or R³ with R⁴ may together form an aliphatic ring, an aromatic ring, a heterocyclic ring or an alkylenedioxy ring; the partial structure:



represents a group represented by $\text{>CH-CH}_2\text{-}$, >C=CH- or $\text{>C(-R}^7\text{)-CH}_2\text{-}$; m represents an integer of 0 or 1 to 5; and R^5 represents hydrogen atom, a C_{1-6} alkyl group which may be substituted, a C_{2-6} alkenyl group which may be substituted, a C_{2-6} alkynyl group which may be substituted, a cycloalkyl group having three to eight carbon atoms which may be substituted, a 2,2-(alkylenedioxy)ethyl group or a group represented by the formula:



(wherein the ring C represents benzene ring, an aliphatic ring or a heterocyclic ring; R⁶s are the same as or different from each other and each represents hydrogen atom, a halogen atom, hydroxyl group, nitrile group, a C₁₋₆ alkyl group which may be substituted, a C₂₋₆ alkenyl group which may be substituted, a C₂₋₆ alkynyl group which may be substituted, a cycloalkyl group having three to eight carbon atoms which may be substituted, a C₁₋₆ alkoxy group which may be substituted, a C₁₋₆ alkoxyalkoxy group which

may be substituted, an aryloxy group which may be substituted or an aralkyloxy group which may be substituted, and further two of R^6 s may together form an aliphatic ring, an aromatic ring, a heterocyclic ring or an alkylenedioxy ring; R^7 represents a halogen atom, hydroxyl group, a C_{1-6} alkyl group which may be substituted, a C_{1-6} alkoxy group, nitrile group, a halogeno- C_{1-6} alkyl group, a hydroxyl- C_{1-6} alkyl group, a cyano- C_{1-6} alkyl group, an amino- C_{1-6} alkyl group, nitro group, azide group, an amino group which may be substituted, a carbamoyl group which may be substituted, a carboxyl group which may be substituted, mercapto group or a thio- C_{1-6} alkoxy group; and n represents an integer of 1 to 5), provided that 1-benzyl-4-[(5,6-dimethoxy-1-indanon)-2-yl]methylnpiperidine, a pharmacologically acceptable salt thereof or a hydrate of them are excluded.